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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,332	08/28/2000	Sylvain Chevreau	RCA90215	4067

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EXAMINER	
KIM, CHONG R	

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/581,332	CHEVREAU ET AL.	
	Examiner	Art Unit	
	Charles Kim	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 August 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 20, 2005 has been entered.

Response to Amendment and Arguments

2. Applicant's amendment filed on June 20, 2005 has been entered and made of record.

3. Applicant's arguments have been fully considered, but they are not deemed to be persuasive for at least the following reasons.

Applicants argue (page 5) that their claimed invention (claim 9) differs from the prior art because, "Friedman fails to even contemplate the problem addressed by the present invention, namely that of authenticating a user who takes pictures." The Examiner responds by pointing out that this portion of the preamble is not considered a limitation because, "a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951)." See MPEP 706. The Examiner notes that even if the

argued feature was considered part of the limitation, the combination of Friedman and Caputo still appear to disclose it. For example, Friedman explains that the pictures are authenticated according to the security element (col. 5, lines 49-65). As noted in the previous office action (page 3), Friedman does not explicitly disclose that the security element is specific to a user. However, Caputo teaches a detachable security element that is specific to a user, and authenticates the user using the device (col. 9, line 61-col. 10, line 31, and col. 11, lines 51-56). Therefore, it appears that the combination of Friedman and Caputo disclose the step of authenticating a user who takes pictures.

Applicants further argue (page 7) that, "the referenced portions of Caputo are inconsistent with the recitation of Claim 9. Claim 9 recites signing of at least part of the digital data (that makes up the picture themselves) -- to give encrypted output digital data. The Examiner would like to point out that Friedman teaches this feature in column 5, lines 49-65. Furthermore, Caputo also explains that the digital data is signed in column 9, lines 45-66 and column 10, lines 18-23, using the encryption algorithm described in column 11, lines 17-59, to give encrypted output digital data.

Applicants further argue (page 7) that, "the proposed combination of Friedman and Caputo is improper, as no motivation exists for combining the references in a manner suggested absent impermissible hindsight gleaned from Applicant's own disclosure." In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Caputo clearly explains that his device enhances, "portability and compactness," and provides a highly secure processing environment (col. 3, lines 44-50 and col. 7, lines 62-64). Therefore, it would have been obvious to combine Friedman and Caputo. The suggestion/motivation for doing so would have been enhance the portability and security of the system.

Applicants further argue (page 8) that, "Caputo merely teaches that any key may be used in accordance with a chosen algorithm, and that the choice of the encrypting/decrypting algorithm, and hence choice of key type, is unimportant to the Caputo invention." The Examiner disagrees. Caputo clearly explains that the key is specific to the security element and the user using the device, and furthermore, the user is authenticated according to the key (col. 11, lines 51-56, col. 12, lines 63-66, and col. 13, lines 45-48).

Applicants further argue (pages 9-10) that their claimed invention (claim 17) differs from the prior art because, "the combined teachings of Friedman and Caputo fail to teach or suggest any circuit associated with a secret key K1 specific to that security element and carrying out the signing of at least part of the digital data to give an encrypted output digital data comprising signed data identifying the user." The Examiner disagrees. Caputo discloses a circuit associated with a secret key K1 specific to that security element and carrying out the signing of at least part of the digital data to give an encrypted output digital data (column 9, lines 46-66, column 10, lines 18-23, and column 13, lines 45-48), where the output digital data comprises signed data identifying the user (col. 11, lines 51-56 and col. 12, lines 63-66). Therefore, the combination of Friedman and Caputo appear to be applicable to claim 17.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 9, 11, 14, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Dunn et al., U.S. Patent No. 5,987,155 ("Dunn").

Referring to claim 9, Dunn discloses a device for authenticating a user who takes pictures made up of digital data (col. 7, lines 33-42) comprising a picture taking apparatus associated with detachable security elements (col. 7, lines 3-11 and col. 8, lines 63-67), each detachable security element being specific to a user (col. 8, lines 19-31), and each detachable security element comprising a circuit associated with a secret key K1 specific to that security element (col. 3, lines 22-37 and col. 7, lines 14-19), and carrying out the signing of at least part of the digital data to give an encrypted output digital data (col. 7, lines 12-24), the security element being connected to the picture taking apparatus through an interface allowing a bi-directional transfer of data (col. 7, lines 25-39).

Referring to claim 11, Dunn further discloses that the detachable element is a chip card (col. 7, lines 3-11).

Referring to claim 14, Dunn further discloses that the picture taking apparatus is a camera head (col. 8, lines 62-67).

Referring to claim 15, Dunn further discloses that the picture taking apparatus is a photographic apparatus (col. 8, lines 62-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Friedman U.S. Patent No. 5,499,294 ("Friedman") and Caputo et al., U.S. Patent No. 5,778,071 ("Caputo").

Referring to claim 9, Friedman discloses a device for authenticating the taking of pictures made up of digital data comprising a picture taking apparatus (11) associated with a security element (12), the security element comprising a circuit associated with a secret key K specific to the security element and carrying out the signing of at least part of the digital data to give an encrypted output digital data (col. 5, lines 49-65).

Friedman does not explicitly disclose that the security element comprises detachable security elements, each detachable security element being specific to a user. However, this feature was exceedingly well known in the art. For example, Caputo discloses detachable security elements (smart cards) comprising a circuit associated with a secret key specific for that security element for signing digital data to give an encrypted output digital data; the detachable

security elements being specific to a user (col. 6, line 67-col. 7, line 20 and col. 14, lines 23-57). Caputo also discloses a detachable security element interface (smart card receptacle) that allows bi-directional transfer of data (col. 10, lines 18-31).

Friedman & Caputo are combinable because they are both concerned with authentication systems that utilize secret keys for encrypting digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the security element of Friedman, so that it comprises the detachable security elements of Caputo. The suggestion/motivation for doing so would have been to enhance the security of the authentication system by taking advantage of the smart card's secure processing environment (Caputo, col. 3, lines 44-50). Therefore, it would have been obvious to combine Friedman with Caputo to obtain the invention as specified in claim 9. Note that the combination of Friedman and Caputo disclose a device for authenticating a user who takes pictures on the picture taking device, since the secret key is associated with the user (Caputo, col. 14, lines 23-57).

Referring to claim 10, Friedman further discloses that the security element incorporates a hashing circuit (12A) [col. 5, lines 56-65 and figure 3B]. As noted above, Caputo discloses a detachable security element. Therefore, the combination of Friedman and Caputo disclose a detachable security element that incorporates a hashing circuit.

Referring to claim 11, Caputo further discloses that the detachable element is a chip card (col. 6, line 67-col. 7, line 20).

Referring to claim 12, Friedman further discloses that the picture taking apparatus comprises a multiplexing circuit (12C) and a circuit (12A) for hashing at least one first fraction of the digital data in such a way as to generate a first hashed datum, the circuit associated with

the secret key K1 carrying out the processing of the first hashed datum in such a way as to generate a signature of the first hashed datum (col. 4, lines 33-37 and col. 5, lines 56-63. Note that the block of the image file is interpreted as a first fraction of the digital data), the signature and the digital data being transmitted to the multiplexing circuit so as to constitute a multiplexed signal (col. 8, lines 53-67).

Referring to claim 13, see the rejection of at least claims 11 and 12 above. Friedman further discloses that the picture taking apparatus comprises a multiplexing circuit (12C), a security element (12) comprising a hashing circuit (12A) carrying out the hashing of at least a first fraction of the digital data originating from the picture taking apparatus in such a way as to generate a first hashed datum, and the first hashed datum is processed in the circuit associated with the secret key K1 in such a way as to generate a signature of the first hashed datum (col. 4, lines 33-37 and col. 5, lines 56-63. Note that the block of the image file is interpreted as a first fraction of the digital data), the signature emanating from the security element and the digital data being transmitted to the multiplexing circuit in such a way as to constitute a multiplexed signal (col. 8, lines 53-67).

Friedman fails to explicitly disclose that the security element is a chip card. However, Caputo discloses a detachable security element that is a chip card, as noted above (claim 11). Therefore, the combination of Friedman and Caputo disclose a detachable element that is a chip card.

Referring to claim 14, Friedman further discloses that the picture taking apparatus (11) is a camera head (col. 5, lines 52-54 and figure 3A).

Referring to claim 15, Friedman further discloses that the picture taking apparatus (11) is a photographic apparatus (col. 5, lines 52-54 and figure 3A).

Referring to claim 16, see the rejection of at least claim 1 above. Friedman further discloses a device (20) for authenticating digital data coming from the device for authenticating the taking of pictures, the device for authenticating the digital data comprising a circuit (22) with public key K2 for calculating a new datum on the basis of the signature, a circuit (21) for hashing at least one second fraction of the digital data in such a way as to generate a second hashed datum, a comparison circuit (23) for comparing the new datum with the second hashed datum in such a way as to constitute a signal making it possible to verify the authenticity of the digital data (col. 6, lines 31-52 and figure 3C).

Friedman fails to explicitly disclose a demultiplexer for separating the digital data and the signature. However, Friedman discloses a multiplexing circuit for multiplexing the digital data and the signature at the device for authenticating the taking of pictures (col. 8, lines 53-67). Note that the digital data entering the device (20) will be a multiplexed signal. Friedman also explains that the digital data and the signature are separated prior to being processed by the device (20) [figure 3C. Note that the digital data and the signature are processed separately]. Therefore, the Examiner notes that a demultiplexer is an inherent feature in the device (20) of Friedman, since a multiplexed signal can only be separated if has been demultiplexed by a demultiplexer.

Referring to claim 17, Friedman discloses a device for authenticating the taking of pictures made up of digital data comprising a picture taking apparatus (11) associated with a security element (12), the security element comprising a circuit associated with a secret key K

specific to the security element and carrying out the signing of at least part of the digital data to give an encrypted output digital data (col. 5, lines 49-65).

Friedman does not explicitly disclose that the security element comprises detachable security elements, each detachable security element being specific to a user, and the signed data identifies the user. However, these features were exceedingly well known in the art. For example, Caputo discloses detachable security elements (smart cards) comprising a circuit associated with a secret key specific for that security element for signing digital data to give an encrypted output digital data comprising signed data identifying the user (col. 11, lines 51-56 and col. 12, lines 63-66); the detachable security elements being specific to a user (col. 6, line 67-col. 7, line 20 and col. 14, lines 23-57). Caputo also discloses a detachable security element interface (smart card receptacle) that allows bi-directional transfer of data (col. 10, lines 18-31).

Friedman & Caputo are combinable because they are both concerned with authentication systems that utilize secret keys for encrypting digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the security element of Friedman, so that it comprises the detachable security elements of Caputo. The suggestion/motivation for doing so would have been to enhance the security of the authentication system by taking advantage of the smart card's secure processing environment (Caputo, col. 3, lines 44-50). Therefore, it would have been obvious to combine Friedman with Caputo to obtain the invention as specified in claim 17. Note that the combination of Friedman and Caputo disclose a device for authenticating a user who takes pictures on the picture taking device, since the secret key is associated with the user (Caputo, col. 14, lines 23-57).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 571-272-7421. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ck
September 23, 2005

SAMIR AHMED
PRIMARY EXAMINER